# Weekly Report

2017.05.15-2017.05.21

## 1. This Week

**Wavelines**

1.read the book “statistical control theory”

2.read papers about temporal sequence and anomaly detection and refine ideas from these papers

**Others**

1.Revise the 5th chapter of the treatise: uncertainty data visualization

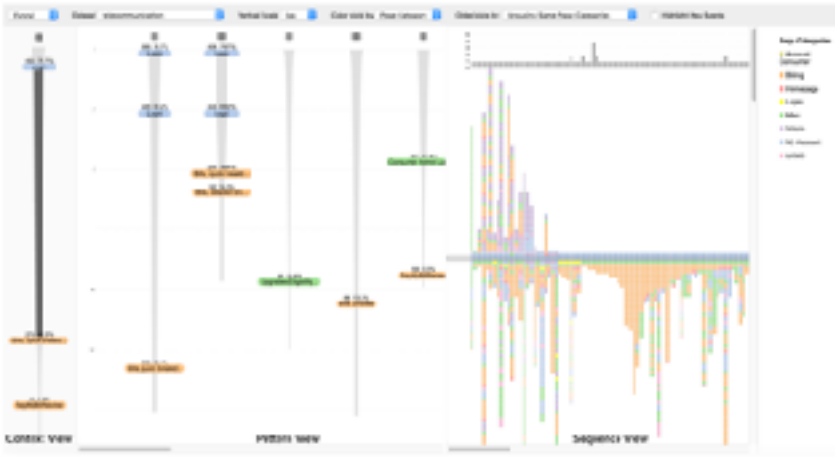
2.Write 5 blogs for the group weibo

3.Have a talk with Dongming about his survey about power system visualization

4.Do homework for the seminar courses

**paper reading**

**1.Patterns and Sequences: Interactive Exploration of Clickstreams to Understand Common Visitor Paths**



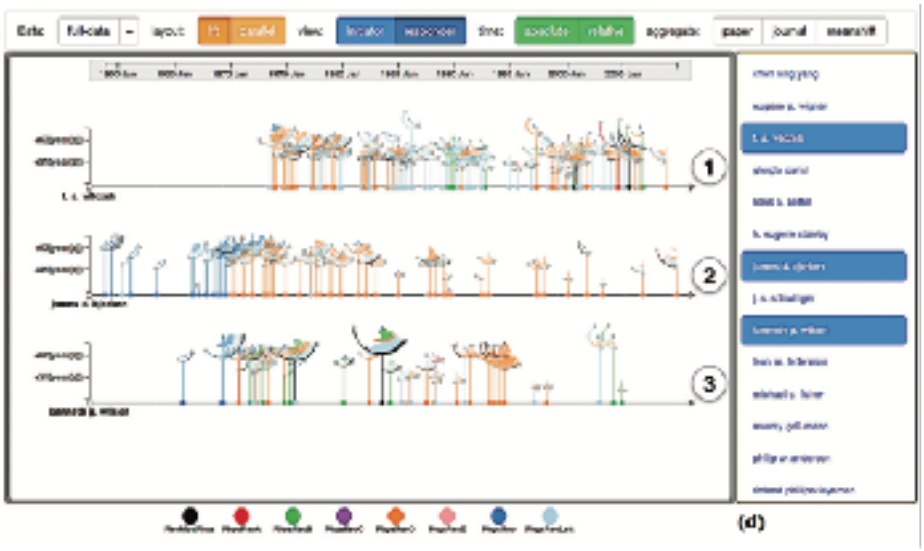
This paper presents an analytic pipeline: pattern mining, pattern pruning, and coordinated exploration.  It identifies four levels of granularity in clickstream analysis: patterns, segments, sequences and events and uses sequential mining as the primary data reduction approach. The pattern view (left) shows the mined sequential patterns under definitions in this paper while the sequence view shows all the events in different categories. The most attractive point in this paper is the pattern and pruning algorithms designed straight after the definitions in this paper.

**2.Visualizations for Power System Contingency Analysis Data**

This paper strongly targeted at applicable power system contingency analysis for the daily usage of technical experts. It presents 3-D visualizations to provide critical information in different detail levels, including the system static security level in terms of the CA voltage magnitudes at buses and loadings on the monitored transmission elements, the locations, and the geographical

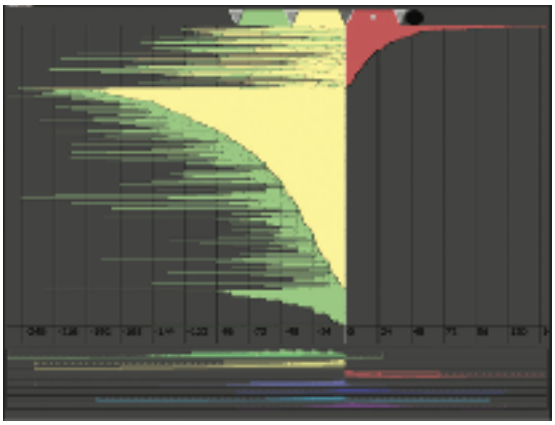
relationships. It's a quite old paper and the methods in this paper is not scalable and appropriate for further visual analysis of power system.

### 3.Episogram: Visual Summarization of Egocentric Social Interactions




This paper explores social interaction data from the aspect of egocentric social activities. The data model defines the initiator and the responder in the social interactions. The visual design of this paper for an interaction sequence initiated by a certain initiator is elaborate. The vertical line of each glyph represents the interaction sequence and the arc above the vertical line is a summarization of this sequence. Apart from the visual design, the other methods of this paper is relatively simple and direct.

### 4.A Visual-Interactive System for Prostate Cancer Cohort Analysis



This paper facilitates the automated identication of interesting dependencies in the prostate cancer patient data records. It encodes the information of each patient into a 1-pixel bar with the temporal information encoded on the horizontal line. Colors represents different patient phases and under more detailed granularity, the condition and treatment measures of the certain patient is also presented. The data used in this paper is of small scale and no consideration of patient attributes is taken into account.

# 2. TODO

1.treatise writing
2.sqc method reading
3.keep up with the wavelines and network security project
4.prepare for the group meeting report next week